

Europass Curriculum Vitae



Personal information

First name / Surname

Address

Telephone

E-mail

Nationality

Date of birth

Gender

Fabio RUINI, Ph.D.

Reggio Emilia (RE) area, Italy

Mobile:

fabio@fabioruini.eu

Italian

28th August 1982

Male

Occupational field

Security and Intelligence

Work experience

Dates

Occupation or position held

Main activities and responsibilities

From April 2012 to present

Advisor and research coordinator

Responsible for the involvement of Zanasi & Partners in EC-funded research programmes (CIPS, FP7, H2020). Coordinator of the company's activities across 9 research projects (BODEGA, CLOUDCERT, CWIT, ISAR+, LEILA, RECOBIA, SCADALAB, SECRET, SOTERIA), ranging from human factors in border control, to Critical Infrastructure Protection (CIP), security-related information sharing, social media monitoring, data/text mining, cyber-security, mitigation of cognitive biases in intelligence analysis, development of comprehensive automated intelligence analysis systems, serious games. Contributor to the preparation of winning H2020 project proposals. Project manager for advisory services provided to clients from the private and public/governmental sectors (development of nuclear detection architectures, terrorist threat-specific risk assessments)

Name and address of employer

Zanasi & Partners (Zanasi Alessandro S.r.l.)

Via G.B. Amici, 29

41124

Modena (MO), Italy

Type of business or sector

Security and intelligence - research and advisory

Dates

Occupation or position held

Main activities and responsibilities

From June 2011 to April 2012

Post-Doctoral Research Fellow

Development of a cognitive architecture for the iCub humanoid robot. The architecture aimed to replicate, on a robotic platform, cognitive phenomena related to visual memory and spatial attention observed during psychological experiments carried out with human participants

Name and address of employer

Plymouth University

Drake Circus

PL4 8AA

Plymouth, UK

Type of business or sector

Research and education

Dates

Occupation or position held

Main activities and responsibilities

From May 2010 to September 2010

Visiting scientist

Co-development of navigation algorithms for Micro-unmanned Aerial Vehicles (MAVs) implementing autonomous flocking behaviours. These algorithms, light-weight from a computational point of view and extremely resilient, make possible for the aircraft to perform sophisticated tasks in a distributed way (i.e., sharing the computational load among its members, a swarm of MAVs can succeed in tasks that would not otherwise be feasible to single individuals)

| | |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name and address of employer | EPFL Route Cantonale 1015 Lausanne, Switzerland |
| Type of business or sector | Research and education |
| Dates | From April 2007 to October 2007 |
| Occupation or position held | Research assistant |
| Main activities and responsibilities | Development of a two-dimensional computer model - based upon Multi-Agents Systems and Evolutionary Robotics techniques - to carry out preliminary investigations on the feasibility of designing autonomous controllers for search & rescue operations to be performed by Micro-unmanned Aerial Vehicles (MAVs) |
| Name and address of employer | Plymouth University Drake Circus PL4 8AA Plymouth, UK |
| Type of business or sector | Research and education |
| Dates | From October 2006 to February 2007 |
| Occupation or position held | Visiting scientist |
| Main activities and responsibilities | Development of an Artificial Life (ALife) model aimed at the investigation of decision making processes in artificial organisms dealing with motivational conflicts |
| Name and address of employer | Consiglio Nazionale delle Ricerche (CNR) Istituto di Scienze e Tecnologie della Cognizione (ISTC) Via San Martino della Battaglia, 44 00185 Roma (RM), Italy |
| Type of business or sector | Research |
| Dates | From 2003 to 2009 |
| Occupation or position held | Teaching assistant |
| Main activities and responsibilities | Assigned to the classes in: Metodi per la Gestione dei Dati (Methods for database management), Laboratorio di Informatica I (Laboratory of Informatics I), Laboratorio di Informatica II (Laboratory of Informatica II), Storia della Comunicazione e dell'Informazione (History of Communication and Information), Storia Economica (Economic History) |
| Name and address of employer | Università degli Studi di Modena e Reggio Emilia Via A. Allegri, 9 42100 Reggio Emilia (RE), Italy |
| Type of business or sector | Research and education |
| Dates | From 2002 to 2004 |
| Occupation or position held | Technological tutor |
| Main activities and responsibilities | Development of a computer network-based messaging system - implemented in PHP/MySQL - thought to be usable for 3-5-year-old users. The work was carried out within the context of the European E ³ (E-context, E-technologies, e-Early learning) project |
| Name and address of employer | Istituto Comprensivo "M.E. Lepido" Via Premuda, 34 42100 Reggio Emilia (RE), Italy |
| Type of business or sector | Education |
| Dates | From June 2000 to August 2000 |
| Occupation or position held | Trainee |
| Main activities and responsibilities | Creation of a promotional multimedia CD built upon typical web design methodologies (HTML, CSS, Javascript) |
| Name and address of employer | Agrisoft Informatica Srl Via Brigata Reggio, 24 42100 Reggio Emilia (RE), Italy |
| Type of business or sector | IT services developer |

Education and training

Dates From October 2007 to June 2011
Title of qualification awarded Ph.D. in Artificial Intelligence
Principal subjects/occupational skills covered Development of autonomous controllers for Micro-unmanned Aerial Vehicles (MAVs) via Evolutionary Robotics design methodologies. PhD studentship funded by the US Air Force Office of Scientific Research's European Office of Aerospace Research and Development
Name and type of organisation providing education and training Plymouth University, UK
 Drake Circus
 PL4 8AA
 Plymouth, UK

Dates From September 2004 to April 2007
Title of qualification awarded Laurea specialistica in Economia e Gestione delle Reti e dell'Innovazione (M.Sc. in Economics and Management of Networks and Innovation). Final grade: 110/110 cum laude
Principal subjects/occupational skills covered Economics, statistics, probability theory, network analysis, data/text mining, complex systems
Name and type of organisation providing education and training Università degli Studi di Modena e Reggio Emilia
 Via A. Allegri, 9
 42100
 Reggio Emilia (RE), Italy
Level in national or international classification M.Sc.

Dates From September 2001 to September 2004
Title of qualification awarded Laurea in Economia, Reti, Informazione - curriculum in Economia delle Reti e della Comunicazione (B.Sc. in Economics, Networks, and Information – Networks and Communication Economics curriculum). Final grade: 105/110
Principal subjects/occupational skills covered Economics, computer science, mathematics, history, psychology
Name and type of organisation providing education and training Università degli Studi di Modena e Reggio Emilia
 Via A. Allegri, 9
 42100
 Reggio Emilia (RE), Italy
Level in national or international classification B.Sc.

Dates From September 1996 to June 2001
Title of qualification awarded Diploma in Informatica (Computer Sciences)
Principal subjects/occupational skills covered Computer sciences, electronics, economics, mathematics, physics
Name and type of organisation providing education and training Istituto Tecnico Statale per Geometri "Blaise Pascal" ad Indirizzo sperimentale BUS-TCS
 Via Makalle', 12
 42100
 Reggio Emilia (RE), Italy
Level in national or international classification High school diploma

Other language(s) English, French, Spanish

Self-assessment
European level (*)
 English
 French

| Understanding | | Speaking | | Writing |
|---------------|---------|--------------------|-------------------|---------|
| Listening | Reading | Spoken interaction | Spoken production | |
| C1 | C2 | C1 | C1 | C1 |
| A1 | B1 | A1 | A2 | A2 |

(*) *Common European Framework of Reference for Languages*

Computer skills and competences Computer programming (C++, PHP 3/4, Visual Basic 6.0, Turbo Pascal 7.0/Delphi), graphical applications development (Qt, Irrlicht 3D engine), web design (HTML, CMS), DBMS (MySQL, Access), grid systems (SGE, Xgrid), mathematical/statistical analysis tools (Matlab, R), network administration, computer security

Driving licence Category B

Selected publications

- Journal articles
Ruini, F., and Cangelosi, A. (2009). Extending the Evolutionary Robotics Approach to Flying Machines: an Application to MAV Teams. *Neural Networks*, 22, 812-821
- Book chapters
Ruini, F., Petrosino, G., Saglimbeni, F., and Parisi, D. (2010). The Strategic Level and the Tactical Level of Behaviour. In Nefi, S., and Gray, J. (Eds.), *Advances in Cognitive Systems* (pp. 271-299), Herts, UK: IET Publisher
- Conference proceedings
Hauert, S., Leven, S., Varga, M., Ruini, F., Cangelosi, A., Zufferey, J.-C., and Floreano, D. (2011). Reynolds Flocking in Reality with Fixed-Wing Robots: Communication Range vs. Maximum Turning Rate. In *Proceedings of IROS 2011, IEEE/RSJ International Conference on Intelligent Robots and Systems*, pp. 5015-5020
- Ruini, F., and Cangelosi, A. (2010). An Incremental Approach to the Evolutionary Design of Autonomous Controllers for Micro-unmanned Aerial Vehicles. In *Proceedings of TAROS 2010, 11th Conference Toward Autonomous Robotics Systems*, pp. 239-246
- Ruini, F., and Cangelosi, A. (2010). An Evolutionary Robotics 3D Model for Autonomous MAVs navigation, target tracking and group coordination. In *Proceedings of IJCNN 2010, International Joint Conference on Neural Networks*, pp. 760-767
- Ruini, F., and Cangelosi, A. (2009). Un Modello di Robotica Evolutiva per lo Sviluppo di Controller Autonomi per Robot Volanti. In Miglino, O., Ponticorvo, M., Rega, A., and Rubinacci, F. (Eds.), *Modelli, Sistemi e Applicazioni di Vita Artificiale e Computazione Evolutiva. Atti del VI Workshop Italiano di Vita Artificiale e Computazione Evolutiva (WIVACE 2009)*, pp. 177-185
- Ruini, F., and Cangelosi, A. (2009). Evolutionary Multi-Agent Systems as a Methodology for Developing Autonomous Controllers for MAV Teams. In *Proceedings of KIMAS 2009, International Conference on Integration of Knowledge Intensive Multi-Agent Systems*.
- Ruini, F., Cangelosi, A., and Zetule, F. (2009). Individual and Cooperative Tasks performed by MAV Teams driven by Embodied Neural Network Controllers. In *Proceedings of IJCNN 2009, International Joint Conference on Neural Networks*, pp. 2717-2724
- Ruini, F., and Cangelosi, A. (2008). Distributed Control in Multi-Agent Systems: a Preliminary Model of Autonomous MAV Swarms. In *Proceedings of FUSION 2008, 11th International Conference on Information Fusion*, pp. 1043-1050
- Reports
Huisman, J., Botzatu, I., Herreras, L., Liddane, M., Hintsa, J., Luda di Cortemiglia, V., Leroy, P., Vermeersch, E., Mohanty, S., van den Brink, S., Ghenciu, B., Dimitrova, D., Nash, E., Shryane, T., Wieting, M., Kehoe, J., Baldé, C.P., Magalini, F., Zanasi, A., Ruini, F., Männistö, T., and Bonzio, A. (2015). Countering WEEE Illegal Trade (CWIT) Summary Report, Market Assessment, Legal Analysis, Crime Analysis and Recommendations Roadmap.
<http://www.cwitproject.eu/wp-content/uploads/2015/09/CWIT-Final-Report.pdf>
- Leva, A., De Santis, D., Vallerotonda, R., Bichi, B., Di Pietro, A., Brugnoli, A., Ruini, F., Filisetti, A., Burani, N., Coppola, N., Pirozzi, M., Puri, D., and Ariano, E. (2015). Il monitoraggio dei mass media in materia di salute e sicurezza. Strumenti per la raccolta e l'analisi delle informazioni.
http://www.inail.it/internet_web/wcm/idc/groups/intranet/documents/document/ucm_201253.pdf

Peer-reviewed abstracts

Ruini, F., Apel, J.K., Morse, A.F., Cangelosi, A., Ellis, R., Goslin, J., and Fischer, M.H. (2012), Towards a Bio-inspired Cognitive Architecture for Short-Term Memory in Humanoid Robots. In *Advances in Autonomous Robotics. Joint Proceedings of the 13th Annual TAROS Conference and the 15th Annual FIRA RoboWorld Congress*, pp. 453-454

Ruini, F., and Parisi, D. (2008), Selective Attention in Artificial Organisms. In Bullock, S., Noble, J., Watson, R., and Bedau, M.A. (Eds.), *Proceedings of ALIFE XI, 11th International Conference on the Simulation and Synthesis of Living Systems* (p.798), Cambridge, MA: MIT Press

Ruini, F., and Cangelosi, A. (2008), Evolutionary Algorithm Based Neural Network Controllers: an Application to MAV Swarms. In *Proceedings of WIVACE 2008, 5th Italian Workshop on Artificial Life and Evolutionary Computation*

Ruini, F., and Parisi, D. (2007), Vivere in un ambiente che contiene cibo e predatori. In *Proceedings of WIVACE 2007, 4th Italian Workshop on Artificial Life and Evolutionary Computation*

I certify that the information provided in my resume is correct to the best of my knowledge. I understand that any misrepresentation or omission of information may result in my failure to receive a job offer, or discharge from employment.



19th April 2016

